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George Rees

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EXAMINER

MEW, KEVIN D

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,761	<b>Applicant(s)</b> REES ET AL.	
	<b>Examiner</b> Kevin Mew	<b>Art Unit</b> 2416	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/28/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/7/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

***Detailed Action***

***Drawings***

1. The drawings are objected to because Figs. 1, 2, 3 lack descriptive labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In particular, the abstract exceeds 150 words in length. Appropriate correction is required.

### ***Claim Objections***

3. Claim 20 is objected to because of the following informalities:

In line 2, claim 20, replace the term "DSH network" with "SDH network."

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 20-22, 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duplessis et al. (WO 02/100024 A2) in view of Battou (US Publication 2002/0174207).

Regarding claim 20, Duplessis discloses a communication system, comprising: an SDH network (SONET/SDH network 4, col. 3, lines 9-12, and Fig. 1), an Ethernet network (network system Net1, page 4, line 30 – page 5, lines 1-2, Fig. 1), the SDH network (SONET/SDH ring network 4, col. 3, lines 9-12, Fig. 1), the SDH network being arranged to transport at least Ethernet information in SDH format across the SDH network (transport path transports Ethernet

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information across the SDH network 4, Fig. 2), the SDH network being at least partially situated at a host site (transport network comprising fiber optic connections, page 3, lines 12-15), the Ethernet network being situated at a user site (local area network, page 4, line 30 - page 5, line 1), the SDH network comprising an SDH network element (SDH network comprising network element N1, page 5, lines 27-30) arranged to convert the Ethernet information in the SDH format (converts SDH format) into Ethernet format information (into Ethernet format; network element N1 comprises a mapper to receive STS-48c traffic and to de-map traffic from STS-1 channels of the STS-48c transport network path to Gigabit Ethernet path L1, page 4, lines 22-23, page 5, lines 27-30, page 6, lines 4-6, Fig. 5) for transportation between the host and user sites via a link between the host and user sites (for transportation between the SDH ring and Network system 2 via transport path TP, Figs. 1 and 2), the Ethernet network comprising an Ethernet network element to receive the Ethernet format information (network system Net1 comprises an Ethernet equipment to receive Ethernet traffic, page 4, line 30 - page 5, lines 1-2).

Duplessis may not explicitly show having an SDH network management system to monitor functionality of network elements in the SDH network, the SDH network element being operative to request a status of the Ethernet network element when the SDH network element is required to update the SDH network management system with status information on the functionality of at least one of the SDH network element and the Ethernet network element.

However, Battou teaches that a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate (paragraphs 0004, 0008-0012, 0106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Duplessis of transporting Ethernet information over SONET/SDH with the teaching of Battou in having a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate such that the transporting system and method of Duplessis will show the SDH network element being operative to request a status of the Ethernet network element when the SDH network element is required to update the SDH network management system with status information on the functionality of at least one of the SDH network element and the Ethernet network element.

The motivation to do so is to determine whether a network element has ceased to operate so that another network element can assume the responsibility of the non-operating network element.

Regarding claim 21, Duplessis discloses the communication system, as claimed in claim 20, wherein the SDH network element comprises network termination equipment (network equipment N1, Fig. 5).

Regarding claim 22, Duplessis discloses the communication system, as claimed in claim 21, wherein the network termination equipment comprises an SDH multiplexer (mapper, element 14, Figs. 3 and 5) and an associated Ethernet conversion card (line card, Figs. 3 and 5).

Regarding claim 31, Duplessis discloses the communication system, as claimed in claim 20, wherein the link is a point-to-point optical link (transport path is STS-48c, page 4, lines 23-27).

Regarding claim 32, Duplessis discloses the communication system, as claimed in claim 20, wherein the Ethernet network element comprises an opto-electrical converter (a mapper module to convert Ethernet traffic onto STS-48c traffic, page 5, lines 9-17).

Regarding claim 33, Duplessis discloses the communication system, as claimed in claim 20, wherein the SDH network element (network element N1, page 5, lines 27-30) is further arranged to convert Ethernet format information received from the Ethernet network into SDH format information for transportation across the SDH network (also comprises a mapper module 14 to convert Ethernet traffic onto STS-48c traffic for transportation across the STS transport path channels of the SDH network, page 5, lines 9-17).

Regarding claim 34, Duplessis discloses a method of communication between an SDH network and an Ethernet network, the method comprising the steps of: arranging the SDH network to transport at least Ethernet information in SDH format across the SDH network (transport path transports Ethernet information across the SDH network 4, Fig. 2), situating the SDH network at least partially at a host site (transport network comprising fiber optic connections, page 3, lines 12-15), situating the Ethernet network at a user site (local area network, page 4, line 30 - page 5, line 1), arranging an SDH network element of the SDH

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network (SDH network comprising network element N1, page 5, lines 27-30) to convert the SDH format Ethernet information (converts SDH format) into Ethernet format information (into Ethernet format; network element N1 comprises a mapper to receive STS-48c traffic and to de-map traffic from STS-1 channels of the STS-48c transport network path to Gigabit Ethernet path L1, page 4, lines 22-23, page 5, lines 27-30, page 6, lines 4-6, Fig. 5), transporting the Ethernet format information between the host and user sites via a link between the host and user sites (for transportation between the SDH ring and Network system 2 via transport path TP, Figs. 1 and 2), receiving the Ethernet format information with an Ethernet network element at the Ethernet network (network system Net1 comprises an Ethernet equipment to receive Ethernet traffic, page 4, line 30 - page 5, lines 1-2).

Duplessis may not explicitly show monitoring functionality of network elements in the SDH network using an SDH network management system, the SDH network element being operative to request a status of the Ethernet network element when the SDH network element is required to update the SDH network management system with status information on the functionality of at least one of the SDH network element and the Ethernet network element.

However, Battou teaches that a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate (paragraphs 0004, 0008-0012, 0106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Duplessis of transporting Ethernet information over SONET/SDH with the teaching of Battou in having a first network management system NMS manager monitors, accesses, requests the state information of a

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second NMS manager to determine whether the second NMS manager ceases to operate such that the transporting system and method of Duplessis will show monitoring functionality of network elements in the SDH network using an SDH network management system, the SDH network element being operative to request a status of the Ethernet network element when the SDH network element is required to update the SDH network management system with status information on the functionality of at least one of the SDH network element and the Ethernet network element.

The motivation to do so is to determine whether a network element has ceased to operate so that another network element can assume the responsibility of the non-operating network element.

Regarding claim 35, Duplessis discloses a communication system, comprising: a first network (SONET/SDH network 4, col. 3, lines 9-12, and Fig. 1), a second network (network system Net1, page 4, line 30 – page 5, lines 1-2, Fig. 1), the first network being arranged to transport at least some information intended for the second network across the first network in a format compatible with the first network (transport path of the SDH network transports Ethernet information across the SDH network 4, Fig. 2), the first network being at least partially situated at a host site (transport network comprising fiber optic connections, page 3, lines 12-15), the second network being situated at a user site (local area network, page 4, line 30 - page 5, line 1), the first network comprising a network element (SDH network comprising network element N1, page 5, lines 27-30) arranged to convert the format of the information intended for the second network (converts SDH format) into second network format information compatible with the

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second network (into Ethernet format; network element N1 comprises a mapper to receive STS-48c traffic and to de-map traffic from STS-1 channels of the STS-48c transport network path to Gigabit Ethernet path L1, page 4, lines 22-23, page 5, lines 27-30, page 6, lines 4-6, Fig. 5) for transportation between the host and user sites via a link between the host and user sites (for transportation between the SDH ring and Network system 2 via transport path TP, Figs. 1 and 2), the second network comprising a network element to receive the second network format information (network system Net1 comprises an Ethernet equipment to receive Ethernet traffic, page 4, line 30 - page 5, lines 1-2).

Duplessis may not explicitly show the first network having a network management system to monitor functionality of network elements in the first network, the network element of the first network being operative to request the status of the network element of the second network when the network element of the first network is required to update the network management system of first network with status information on the functionality of at least one of the network element of the first network and the network element of the second network.

However, Battou teaches that a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate (paragraphs 0004, 0008-0012, 0106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Duplessis of transporting Ethernet information over SONET/SDH with the teaching of Battou in having a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate such

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that the transporting system and method of Duplessis will show the first network having a network management system to monitor functionality of network elements in the first network, the network element of the first network being operative to request the status of the network element of the second network when the network element of the first network is required to update the network management system of first network with status information on the functionality of at least one of the network element of the first network and the network element of the second network.

The motivation to do so is to determine whether a network element has ceased to operate so that another network element can assume the responsibility of the non-operating network element.

Regarding claim 36, Duplessis discloses a method of communicating between a first network (SONET/SDH network 4, col. 3, lines 9-12, and Fig. 1), a second network (network system Net1, page 4, line 30 – page 5, lines 1-2, Fig. 1), the method comprising the steps of: arranging the first network to transport at least some information intended for the second network across the first network in a format compatible with the first network (transport path of the SDH network transports Ethernet information across the SDH network 4, Fig. 2), situating the first network at least partially at a host site (transport network comprising fiber optic connections, page 3, lines 12-15), situating the second network at a user site (local area network, page 4, line 30 - page 5, line 1), arranging a network element of the first network (SDH network comprising network element N1, page 5, lines 27-30) to convert the format of the information intended for the second network (converts SDH format) into second network format information

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compatible with the second network (into Ethernet format; network element N1 comprises a mapper to receive STS-48c traffic and to de-map traffic from STS-1 channels of the STS-48c transport network path to Gigabit Ethernet path L1, page 4, lines 22-23, page 5, lines 27-30, page 6, lines 4-6, Fig. 5), transporting the second network format information between the host and user sites via a link between the host and user sites (for transportation between the SDH ring and Network system 2 via transport path TP, Figs. 1 and 2), receiving the second network format information at the second network with a network element of the second network (network system Net1 comprises an Ethernet equipment to receive Ethernet traffic, page 4, line 30 - page 5, lines 1-2).

Duplessis may not explicitly show monitoring functionality of network elements in the first network using a network management system, the network element of the first network being operative to request a status of the network element of the second network when the network element of the first network is required to update the network management system of the first network with status information on the functionality of at least one of the network element of the first network and the network element of the second network.

However, Battou teaches that a first network management system NMS manager monitors, accesses, requests the state information of a second NMS manager to determine whether the second NMS manager ceases to operate (paragraphs 0004, 0008-0012, 0106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system and method of Duplessis of transporting Ethernet information over SONET/SDH with the teaching of Battou in having a first network management system NMS manager monitors, accesses, requests the state information of a

second NMS manager to determine whether the second NMS manager ceases to operate such that the transporting system and method of Duplessis will show monitoring functionality of network elements in the first network using a network management system, the network element of the first network being operative to request a status of the network element of the second network when the network element of the first network is required to update the network management system of the first network with status information on the functionality of at least one of the network element of the first network and the network element of the second network.

The motivation to do so is to determine whether a network element has ceased to operate so that another network element can assume the responsibility of the non-operating network element.

5. Claims 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duplessis et al. (WO 02/100024 A2) in view of Battou (US Publication 2002/0174207), and in further view of Maggio et al. (US Publication 2003/0165153).

Regarding claim 23, Duplessis and Battou disclose all aspects of claim 20 above. Duplessis may not explicitly show disclosing the communication system, as claimed in claim 20, wherein the SDH network element is arranged to request the status of the Ethernet network element by transmitting the request for status within the format of an Ethernet frame transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame (paragraphs 0048, Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame such that the system of Duplessis will show the SDH network element is arranged to request the status of the Ethernet network element by transmitting the request for status within the format of an Ethernet frame transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating an estimation of delays of data propagation through the virtual private network and the information relating to the operation status of Links, Circuits and Paths.

Regarding claim 24, Duplessis and Battou disclose all aspects of claim 20 above. Duplessis may not explicitly show the communication system, as claimed in claim 20, wherein the SDH network element is arranged to request the status of the Ethernet network element by transmitting the request for status between successive Ethernet frames transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame (paragraphs 0046, 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout

message is sent before the GFP message containing the Ethernet frame such that the system of Duplessis will show the SDH network element is arranged to request the status of the Ethernet network element by transmitting the request for status between successive Ethernet frames transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating the transit time of packets and those information relating to the Ethernet message that is transported.

Regarding claim 25, Duplessis and Battou discloses the communication system, as claimed in claim 23 above.

Duplessis may not explicitly show the Ethernet network element is arranged to provide a response to the request for status from the SDH network element by transmitting the response within the format of an Ethernet frame transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame (paragraph 0048, Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame such that the system of Duplessis will show the Ethernet network element is arranged to provide a response to the request for status from the

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SDH network element by transmitting the response within the format of an Ethernet frame transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating an estimation of delays of data propagation through the virtual private network and the information relating to the operation status of Links, Circuits and Paths.

Regarding claim 26, Duplessis and Battou discloses all aspects of claim 24 above. Duplessis may not explicitly show the communication system, as claimed in claim 24, wherein the Ethernet network element is arranged to provide a response to the request for status from the SDH network element by transmitting the response between successive Ethernet frames transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame (paragraphs 0046, 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame such that the system of Duplessis will show the Ethernet network element is arranged to provide a response to the

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request for status from the SDH network element by transmitting the response between successive Ethernet frames transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating the transit time of packets and those information relating to the Ethernet message that is transported.

Regarding claim 27, Duplessis and Battou discloses all aspects of claim 23 above. Duplessis may not explicitly show the communication system, as claimed in claim 23, wherein the Ethernet network element is arranged to provide status information to the SDH network element by transmitting the status information within the format of an Ethernet frame transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame (paragraph 0048, Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame such that the system of Duplessis will show the Ethernet network element is arranged to provide status information to the SDH network element by transmitting the status information within the format of an Ethernet frame transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating an estimation of delays of data propagation through the virtual private network and the information relating to the operation status of Links, Circuits and Paths.

Regarding claim 28, Duplessis and Battou disclose all the aspects of claim 24 above. Duplessis may not explicitly show the communication system, as claimed in claim 24, wherein the Ethernet network element is arranged to provide status information to the SDH network element by transmitting the status information between successive Ethernet frames transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame (paragraphs 0046, 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame such that the system of Duplessis will show the Ethernet network element is arranged to provide status information to the SDH network element by transmitting the status information between successive Ethernet frames transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating the transit time of packets and those information relating to the Ethernet message that is transported.

Regarding claim 29, Duplessis and Battou disclose all aspects of claim 23 above. Duplessis may not explicitly show the communication system, as claimed in claim 23, wherein the SDH network element is arranged to issue an instruction to the Ethernet network element by transmitting the instruction within the format of an Ethernet frame transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame (paragraphs 0048, Fig. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent within the Ethernet frame such that the system of Duplessis will show the SDH network element is arranged to issue an instruction to the Ethernet network element by transmitting the instruction within the format of an Ethernet frame transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating an estimation of delays of data propagation through the virtual private network and the information relating to the operation status of Links, Circuits and Paths.

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Regarding claim 30, Duplessis discloses the communication system, as claimed in claim 24, wherein the SDH network element is arranged to issue an instruction to the Ethernet network element by transmitting the instruction between successive Ethernet frames transported over the link.

However, Maggio teaches a method for enhanced transport of Ethernet traffic over SDH/SONET network and for sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame (paragraphs 0046, 0049).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SDH and Ethernet network system of Duplessis with the teaching of Maggio in sending a scout message to check the status information wherein the scout message is sent before the GFP message containing the Ethernet frame such that the system of Duplessis will show the SDH network element is arranged to request the status of the Ethernet network element by transmitting the request for status between successive Ethernet frames transported over the link.

The motivation to do so is to transport all the information relating to the operation status, those information required for calculating the transit time of packets and those information relating to the Ethernet message that is transported.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chi H Pham/  
Supervisory Patent Examiner, Art Unit  
2416  
3/10/09

/K. M./  
Examiner, Art Unit 2416